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| 10/091,932 | 03/06/2002 | Eric Bloedom | 2471.2001-001 | 7060 |
| 21005 | 7590 | 05/04/2005 | EXAMINER | |
| HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133 | | | BLACK, LINH | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2167 | |

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/091,932

Applicant(s)

BLOEDORN, ERIC

Examiner

LINH BLACK

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-14 and 16 is/are rejected.
- 7) ☒ Claim(s) 7, 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/24/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This communication is in response to the Applicants' Response dated 1/24/05. The supplemental IDS has been considered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8-14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liddy et al. (USP 6026388), and further in view of Almog et al. (USPAP 2002/0002479).

1. As per independent claims 1 and 9, Liddy et al. teach:

accessing documents/files/records from the database for evaluation; and evaluating a match between the two records as a weighted match between each of a plurality of available fields – col. 2, lines 65-67 (at least two or more documents in the database are processed to provide corresponding alternative representation for matching to queries); col. 25, lines 14-37; col. 26, lines 14-26.

such that a matching process is selected as appropriate from among a group of matching processes including strict Boolean, ordinal, and vector-based matching processes; wherein when a strict Boolean matching process is selected, applying a match function as an exact match test – col. 17, line 4; col. 19, table 5; col. 20, line 47 to col. 21, line 6; col. 34, line 15-44; col. 25, lines 13-37.

In the specification, page 8, lines 18-25, Applicants teach in step 110, the data evaluation application 24 has selected (in step 106) the ordinal matching process 28, and applies an ordinal match function to evaluate the data in fields 44. When the data are ordered, the system requires information from the user concerning the size and ordering of the domain. This matching is appropriate for any ordinal or interval type of data from numeric to string-based data.

when an ordinal matching process is selected, applying a match function that makes use of information concerning the size and ordering of the data domain – col. 34, line 15-44.

when a vector-based matching process is selected applying a match function that uses a vector space frequency test – col. 15, lines 9-18; col. 23, lines 19-29; col. 25, lines 13-37.

However, Liddy et al. teach at least two or more documents in the database are processed to provide corresponding alternative representation for matching to queries - col. 2, lines 65-67; Liddy et al. do not explicitly suggest two of the records. Almog et al. explicitly teach accessing two of the records from the database for evaluation; and

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evaluating a match between the two records as a weighted match between each of a plurality of available fields – paragraphs 0018, 0037, 0110, 0121, and 0122.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Almog et al.'s teaching with Liddy et al. teaching in order to allow users to retrieve matched records.

2. As per claims 2 and 10, Liddy et al. teach:

wherein the step of evaluating a match between the two records comprises applying the matching process to determine a match score for two corresponding fields of the plurality of available fields, the two corresponding fields selected from corresponding locations in each of the two records – col. 20, line 47 to col. 21, line 60; col. 23, lines 19-28; col. 24, lines 10-19 and 53-60.

3. As per claims 3 and 11, Liddy et al. teach:

wherein the step of evaluating a match between the two records comprises selecting the matching process based on a common data type shared by both of two fields of the plurality of available fields accessed in the two records – col. 5, lines 29-36; col. 9, lines 9-11; col. 15, line 62 to col. 16, line 1; col. 31, lines 2-23.

4. As per claims 4 and 12, Liddy et al. teach:

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wherein when a Boolean matching process is selected, the data type of both of the two fields specifies nominal data – col. 18, lines 36-47; col. 20, line 47 to col. 21, line 6; col. 34, lines 28-44.

5. As per claims 5 and 13, Liddy et al. teach:

wherein when an ordinal matching process is selected, the data type of both of the two fields specifies data capable of being ordered – col. 3, line 63 to col. 4, line 14; col. 21, lines 20-60; col. 24, lines 11-19.

6. As per claims 6 and 14, Liddy et al. teach:

when a vector-based matching process is selected, the data type of both of the two fields specifies text data - col. 15, lines 9-18; col. 23, lines 19-29; col. 25, lines 13-37.

7. Claims 8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liddy et al. (USP 6026388), Almog et al. (USPAP 2002/0002479), and further in view of Kawamura et al. (USP 5778388).

8. As per claims 8 and 16, Liddy et al. and Almog et al. do not explicitly suggest wherein the database is a relational database, the records are tuples. However, Kawamura et al. teach hierarchical resources in relational database, and tuples are rows/records, and synchronization of databases – col. 1, lines 13-34. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to

use relational database with tables of records to compare fields to efficiently and sufficiently compare fields/columns/attributes between records.

Allowable Subject Matter

Claims 7 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 1/24/05 have been fully considered but they are not persuasive. In regard to the argument that both Liddy and Almog are silent with regards to the limitations: accessing two records in a database and evaluating a match between the two records such that a matching process is selected, Examiner disagrees with the arguments. The reason is these background matching processes: Boolean, vector-based, or ordinal are all taught by Liddy, (please check on the citations of columns and lines in claim 1). Liddy also teach at least two or more documents in the database are processed to provide corresponding alternative representation for matching to queries - col. 2, lines 65-67. In regard to Almog's limitation of evaluating a match between the two records, Examiner finds that matching two records/documents in a database or two databases are well known in the art. In addition of Liddy's and Almog's teachings,

Haimowitz et al. (US 5960430) also teaches generating rules for matching new customer records to existing customer records in a large database – the title.

In regard to the argument Applicant's claimed invention does not require generating an alternative representation of data before matching occurs. Liddy further teaches "After processing the query, the system displays query information to the user, indicating the system's interpretation and representation of the content of the query. The user is given an opportunity to provide input, in response to which the system modifies the alternative representation of the query. Once the user has provided desired input, the possibly modified representation of the query is matched to the relevant document database." – col. 2, lines 55-65. Examiner finds that with this process only provide opportunities for users to further define their queries, either accept/choose the alternatives or not – fig. 14B, elements 370c-380e.

In addition, in one aspect/embodiment of the Liddy's invention, a set of documents is presented to the user, who is given an opportunity to select some or all of the documents, typically on the basis of such documents being of particular relevance. The user then initiates the generation of a query representation based on the alternative representations of the selected document(s)." - col. 3, lines 1-7. However, Examiner finds that users are allowed to choose/receive the set of documents that is presented to the users without initiating the generation of a query representation based on the alternative representations of the selected documents.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LINH BLACK whose telephone number is 703-305-0317. The examiner can normally be reached on 8am - 5pm. .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN BREENE can be reached on 703-305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Linh Black

LINH BLACK
Examiner
Art Unit 2177

May 2, 2005

John S. Wassum
Principal Examiner